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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/955,512	09/17/2001	H.S. Lan	67,200-422	1813

7590 10/05/2004

TUNG & ASSOCIATES
Suite 120
838 W. Long Lake Road
Bloomfield Hills, MI 48302

EXAMINER

LOWE, MICHAEL S

ART UNIT	PAPER NUMBER
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3652

DATE MAILED: 10/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/955,512

Applicant(s)

LAN ET AL.

Examiner

M. Scott Lowe

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5,7-12,14-17,19 and 20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5,7-12,14-17,19 and 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 September 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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In view of the arguments filed on 7/2/04, PROSECUTION IS HEREBY REOPENED. A new non-final rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

- (1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,
- (2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3,5,9,11,12,15,17, are rejected under 35 U.S.C. 103(a) as being unpatentable over Cheng (US 6,053,688) in view of Ohntrup (US 3,672,470).

Re claims 1,11, Cheng teaches a loadport equipped with automatic height adjustment means comprising:

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a movable platform 112 adapted for carrying a wafer cassette 16 thereon and for moving vertically in an up-and-down direction;

at least two support members 111,113 (or 128, 125) for supporting said movable platform and for moving said platform in an up-and-down direction.

Cheng is silent as to how the platform is controlled other than stating a computer or various equivalents may be used. However, Ohntrup teaches a load handling platform 16 that moves up and down to deliver containers using a distance sensor L mounted on a bottom surface (figure 3) of said movable platform for measuring a height of said movable platform (column 6, line 13) and a process controller (figure 8) for receiving a first signal from said distance sensor, comparing (determining a deviation) to a pre-stored datum D and then sending a second signal to said at least two support members move said movable platform until said first signal equals said pre-stored datum D in order to provide a simple, effective and versatile means for material handling (column 1, lines 56-57).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Cheng by the general teaching of Ohntrup to have a distance sensor mounted on a bottom surface of said movable platform for measuring a height of said movable platform and a process controller for receiving a first signal from said distance sensor, comparing (determining a deviation) to a pre-stored datum and then sending a second signal to said at least two support members move said movable platform until said first signal

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equals said pre-stored datum D in order to provide a simple, effective and versatile means for material handling.

Re claim 2, Cheng teaches the platform being a load port platform.

Re claims 3, 12, 17, Cheng teaches said at least two support members are two support members spaced-apart each for supporting one of two ends of said movable platform.

Re claim 5, Cheng teaches said at least two support members further comprises a screw and a screw rail operated by a motor for moving said movable platform in an up-and-down direction (column 5, lines 51-58).

Re claims 9, 15, Cheng as already modified teaches a general distance sensor. Ohntrup teaches an optical distance sensor since it is simple and effective (column 1, lines 56-57). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Cheng to have an optical distance sensor since it is simple and effective.

Claims 7, 8, 10, 14, 16, 19, 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cheng (US 6,053,688) and Ohntrup (US 3,672,470) in view of Schauer (US 6,763,281).

Re claims 7, 8, 14, although Cheng as already modified by Ohntrup teaches a sensor that is used to level said platform, the sensor is not on or adjacent a top surface of the platform. Schauer teaches a leveling sensor on top of a platform order ensure that the system is aligned and prevent collisions

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(abstract). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Cheng by the general teaching of Schauer to have a leveling sensor on top of a platform order ensure that the system is aligned and prevent collisions.

Re claims 10,16,19,20 Cheng as already modified teaches a general distance sensor. Schauer teaches a sonic distance sensor (column 29, line 5) and other non-contact distance sensors are equivalent and more accurate than mechanical sensors (column 3). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Cheng general teaching of Schauer to have a sonic or other (infrared, ultrasonic,etc.) type of non-mechanical distance sensor in order to a functional equivalent sensor that is more accurate than mechanical sensors.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Carney (US 6,652,015) teaches an infrared distance sensor.

Motsenbocker (US 6,571,722) teaches ultrasonic distance sensors.

Hansen (US 5,201,626) teaches ultrasonic distance sensors.

Kato (US 2001/0016990) teaches height sensor for a carriage platform.

Hine (US 6,591,160) teaches a sonic distance sensor.

Anderson (US 6,059,511) teaches platform height (distance) sensors and a look-up table for controlling deviations.

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Wen (US 6,206,441) teaches distance sensors on the top and bottom of a platform.

Huang (US 6,060,721) teaches a cassette platform with distance sensor controls.

Nogami (US 4,759,681) teaches a cassette platform with distance sensor controls.

Fukui (US 5,438,418) teaches a cassette platform with distance sensor controls.

Kato (US 6,208,909) teaches a cassette platform with distance sensor controls (figure 8).

Regarding applicants argument that Cheng does not teach a load port, however Cheng states that the invention does have loadport 10,100 for semiconductor fabrication equipment.

Applicant's remaining arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. Scott Lowe whose telephone number is 703-305-1940. The examiner can normally be reached on 6:30am-4:30pm M,Tu,Th,F.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eileen Lillis can be reached on 703-308-3248. The fax

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phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

msl



EILEEN D. LILLIS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600